



HBK05

Max Flow: 60 gpm (227 lpm)



HBK05 Spin-On Filters

Working Pressures to: 150 *psi*
1034 kPa
10.3 bar

Rated Static Burst to: 250 *psi*
1724 kPa
17.2 bar

Flow Range To: 60 *gpm*
227 *lpm*



Features

HBK05 is a strong and durable low pressure filter with a spin-on design that simplifies servicing and reduces maintenance costs. Its heavy-duty steel canister has a rigid steel attachment plate for added strength. The head-to-canister O-ring seal is designed to ensure seal integrity beyond 250 psi/17 bar. The head is made of die-cast aluminum.

Take advantage of our mix and match system of in-stock heads and filters—so you can get exactly what you need, HBK05 is available with your choice of visual or electrical service indicators, and bypass ratings of 50 psi, 25 psi, or 5 psi. The filter media is Synteq™, our proprietary synthetic media specifically designed for liquid filtration.

HBK05 filters ship with "L", square, and O-ring gaskets (unless noted with Viton® seals, then with square and o-ring gaskets). All HBK05 filters are interchangeable with SP50/60, SP80/90 and SP100/120 spin-ons, and have 1½" - 16 UN threads.

Viton® is a registered trademark of E. I. DuPont de Nemours and Company.

Beta Rating

- Performance to $\beta_{<4(c)}=1000$

Porting Size Options

- 1¼" NPT
- SAE-20 O-ring

Replacement Filter Lengths

- 6.7" / 170 mm (short)
- 10.7" / 271 mm (long)

Standard Bypass Ratings

- 50 *psi* / 345 kPa / 3.4 bar
- 25 *psi* / 172.5 kPa / 1.7 bar
- 5 *psi* / 34.5 kPa / .34 bar

Assembly Weight

- 6.9 lbs / 3.1 kg (long)
- 5.7 lbs / 2.6 kg (short)

Operating Temperatures

- -22°F to 225°F / -30°C to 107°C

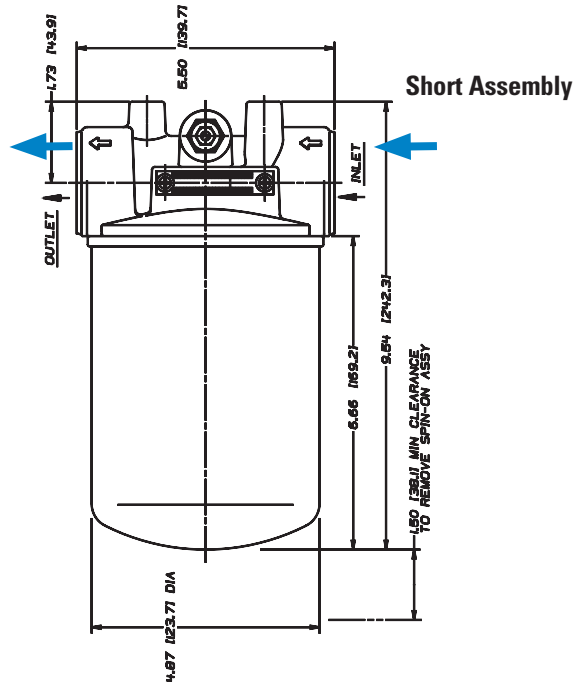
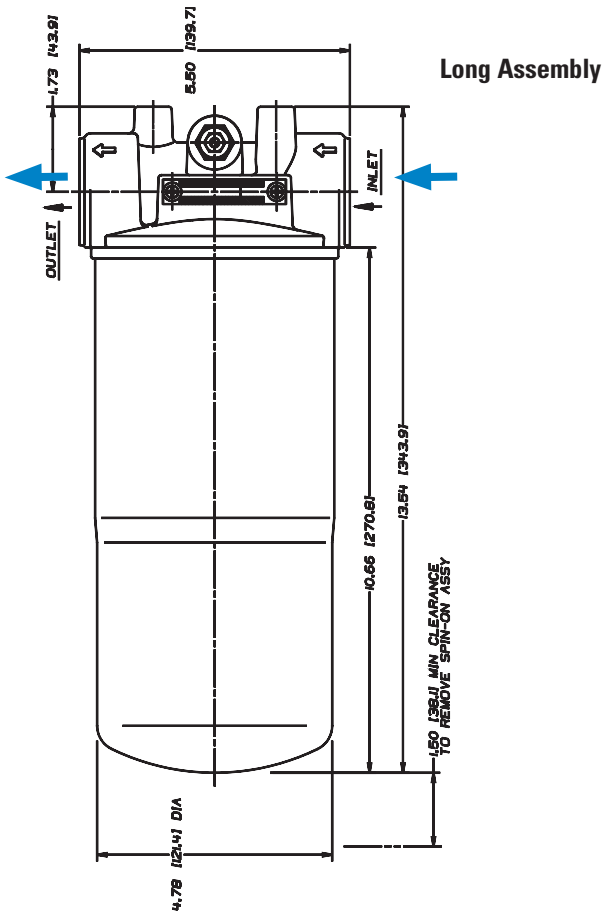
Filter Collapse Ratings

- 125 *psid* / 863 kPa / 8.6 bar

HBK05 Specification Illustrations

All dimensions are shown in inches [millimeters].

Assembly - Side View

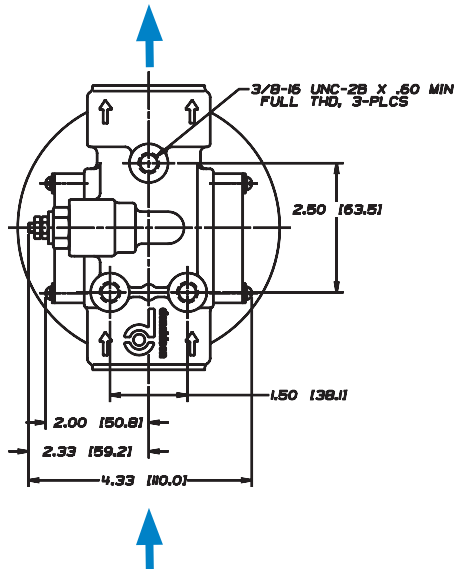


Applications

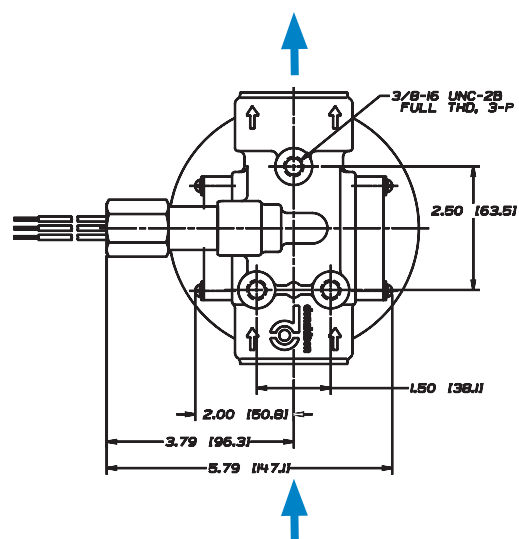
- Cooling Circuits
- Fluid Conditioning Systems
- Hydrostatic Charge Pumps
- Lube Oil Systems
- Power Transmissions
- Return Lines
- Side Loop Systems

Head - Top View

with DC Electrical Service Indicator



with AC/DC Electrical Service Indicator





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HBK05 Components

Filter Choices

Media Type	$\beta_{x(c)} = 2$ Rating based on ISO 16889	$\beta_{x(c)} = 1000$	Length in	mm	Donaldson Part No.	Comments
Synteq Synthetic	<4 μ m		10.7	271	P167796	Viton® Seal
	7 μ m		6.7	170	P169430	
	7 μ m		10.7	271	P167832	
	7 μ m		6.7	170	P167162	
	7 μ m		10.7	271	P165762	
	9 μ m		6.7	170	P165875	
	9 μ m		10.7	271	P165876	
	13 μ m		6.7	170	P167944	Viton Seal
	13 μ m		10.7	271	P167945	Viton Seal
	23 μ m		6.7	170	P165877	
	23 μ m		10.7	271	P165878	
	50 μ m		6.7	170	P165879	
	50 μ m		10.7	271	P165880	
	Water Absorbing	10 μ m		10.7	271	P561183

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Filter Notes

- * Thread size 1"-16 UNF
- Some part numbers are offered with the same beta ratings to maintain customer ordering patterns.

Head Choices

Port Size	Bypass Rating	Indicator Style & Location	Part No.
1¼" NPT	50 psi 345 kPa	Visual,	P172953 Both Sides
1¼" NPT	25 psi 172 kPa	Visual,	P166418 Both Sides
1¼" NPT	5 psi 34 kPa	Visual,	P166665 Both Sides
SAE-20 O-Ring	25 psi 172 kPa	Visual, Both sides	P166439

Note

* Donaldson uses the inlet port as the reference point. "Left side," for instance, means that the indicator mounts on the side of the filter head that is on your left when you face the inlet port.



Mix and Match

Donaldson's mix and match system provides the great performance and functional advantages of custom-engineered filters with the convenience and speedy delivery of in-stock parts. Choose your options and build an HBK05 filter to suit your specifications.

Service Indicator Options

Electric Models ⁽¹⁾				Visual Models (Non-Electric) ⁽²⁾		
Use with Bypass Valve Pressure of:	Indicator Part No.	Style ⁽³⁾	Description	Use with Bypass Valve Pressure of:	Indicator Part No.	Style ⁽³⁾
5 psi / 34.5 kPa	P163642	A	Single post DC. Normally open.	5 psi / 34.5 kPa	P162694	D
15 psi / 103 kPa	P163601	A	Single post DC. Normally open.	15 psi / 103 kPa	P162642	D
25 psi / 172.5 kPa	P163839	A	Single post DC. Normally closed.	25 psi / 172.5 kPa	P162696	D
25 psi / 172.5 kPa	P162400	A	Single post DC. Normally open.	N/A	P165984	(blank plate)
25 psi / 172.5 kPa	P171143	B	2-wire with Cannon connector. Normally open.			
25 psi / 172.5 kPa	P173944	C	3-wire: White = normally open Red = normally closed Black = common			

Indicator Notes

- ⁽¹⁾ All electric models have a maximum operating temperature of 250°F/ 121°C.
- ⁽²⁾ All non-electric models have a maximum operating temperature of 180°F/ 82°C.
- ⁽³⁾ See indicator illustrations on facing page.

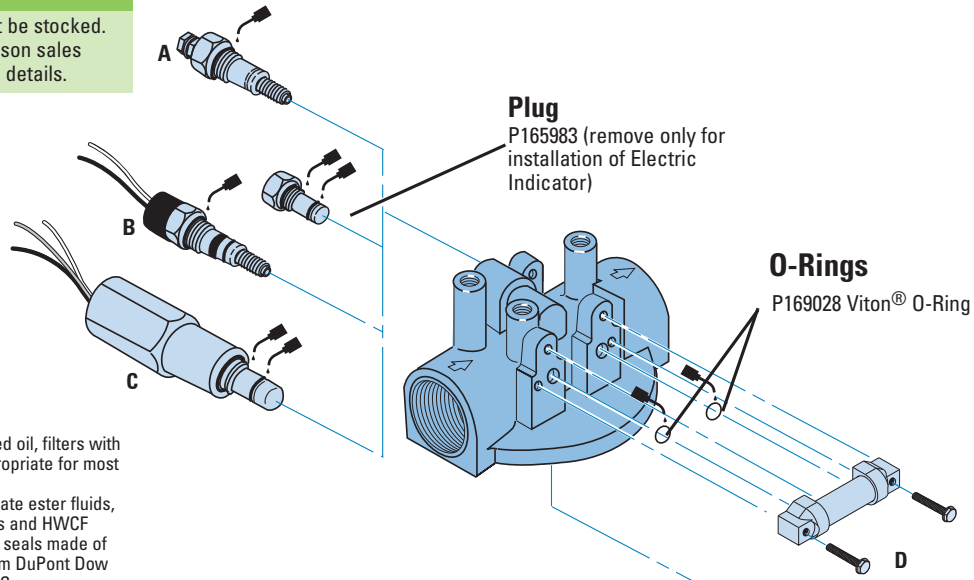
HBK05 Service Parts

SERVICE PARTS NOTE:

Some service parts may not be stocked. Please contact your Donaldson sales representative for lead time details.

Service Indicator Styles

(See table on opposite page)



Filter Notes

- If you're filtering petroleum-based oil, filters with seals made of Buna-N® are appropriate for most applications.
- If you're filtering diester, phosphate ester fluids, water glycol, water/oil emulsions and HWCF over 150°F/ 83°C, use filters with seals made of fluorocarbon, such as Viton® from DuPont Dow Elastomers, or Fluorel® from 3M Company.
- Refer to the table in the Technical Reference Guide for fluid compatibility with our filter media.

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Gaskets

Each filter ships with a 3-seal kit, containing an "L" shaped, a square cut, and an O-ring gasket seal, unless otherwise noted. Use only one of the following seals. Installation instructions can be found in the technical reference section.

L Shaped



Use with filter heads with no groove or a wide groove.

Square Cut



Use with filter heads with a narrow groove.

O-Ring -246



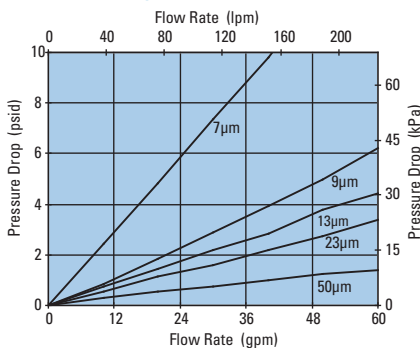
Use with Donaldson HBK05 heads only.

Head to Filter Seal

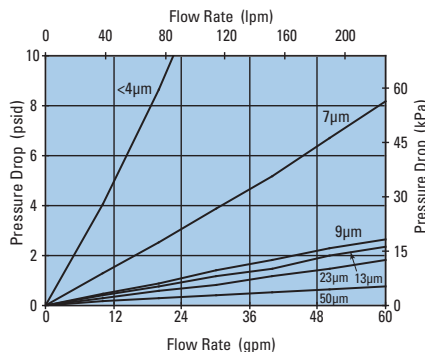
P166435 #246
P165641 - Square cut gasket for use with Non-Donaldson heads

Performance Data

HBK05 Filter Only
(Synthetic, 6.7"/170mm)



HBK05 Filter Only
(Synthetic, 10.7"/271mm)



HBK05 Head Only

